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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Distributed Energy Resources.	Rulemaking 14-10-003 (Filed October 2, 2014)

ADMINISTRATIVE LAW JUDGE'S RULING TAKING COMMENT ON STAFF PROPOSAL RECOMMENDING A SOCIETAL COST TEST

Summary

This ruling continues the record development for addressing issues related to phase three of the cost effectiveness issues for improving the cost-effectiveness methods to better reflect policies. The focus of this ruling is a staff proposal recommending that the Commission approve a Societal Cost Test (SCT) (Staff SCT Proposal). The Staff SCT Proposal recommends that the proposed SCT include a greenhouse gas adder, an air quality value, and use a social discount rate. Furthermore, the Staff SCT Proposal suggests that the SCT could be used alongside the traditional Total Resource Cost (TRC) and Program Administrator Cost (PAC) tests or modified versions of those tests to use in the Commission's evaluation of distributed energy resources. In addition, this ruling addresses phase three recommendations from the cost effectiveness working group report. Parties shall file responses to the questions posed in this Ruling no later than March 23, 2017. Parties may also comment on any aspect of the staff proposal.

Replies to responses and opening comments shall be filed no later than April 6, 2017.

Background

An October 9, 2015 Administrative Law Judge Ruling introduced a four-phase Commission staff proposal for updating the Commission's cost-effectiveness framework. Those four phases are: 1) Improve the existing cost-effectiveness framework; 2) Improve the relationship between cost-effectiveness and system conditions through a coordinated effort with Rulemaking (R.) 14-08-013; 3) Improve models and methods to accurately reflect policies; and 4) Expand the cost-effectiveness framework to create an all-source, all-technology valuation framework. Embarking on the first phase, the Ruling established a working group to address three objectives for updating the Commission's current cost-effectiveness framework (Working Group):
1) Establishing a system for avoided cost calculator version control;
2) Developing a process for avoided cost calculator data updates; and
3) Developing recommendations related to resource balance year; avoided cost estimation; costs and benefits definitions; and whether to develop a societal cost test.

As directed by the October 9, 2015 Ruling, the Working Group filed a Status report "describing the activities of the working group and the progress of the working group in attaining each of the three objectives." Following the issuance of a Ruling and subsequent responses to the Ruling's questions, the Commission adopted Decision (D.) 16-06-007 that approved, with refinement, the immediately-required actions as recommended by the Working Group.

The Working Group continued its efforts and subsequently filed a final report on August 31, 2016, as directed by D.16-06-007. Relevant to this ruling,

the Final Working Group Report recommended a draft list of phase three issues[1] and suggested that the Commission develop guidelines for the use of each Standard Practice Manual (SPM) test, with a better understanding of the usefulness of each SPM perspective. Specifically, the Final Working Group Report discussed the debate regarding whether cost-effectiveness tests appropriately reflect environmental goals and whether cost-effectiveness tests appropriately reflect the relative significance of the utility and participant perspectives (i.e., the TRC test vs. the PAC test debate). Furthermore, the report suggested that the discussion should also address under what circumstances the various tests should be used for budget approval, program design, and evaluation. The Final Working Group report listed several options for the Commission to pursue:

1. Replace the TRC, currently considered the primary test of cost-effectiveness, with the PAC test;
2. Replace the TRC with a societal test;
3. Use cost-effectiveness tests that are strictly limited to financial costs and benefits, and use some other method of valuing non energy impacts; and
4. Use a variety of tests, depending on the objective (e.g., budget approval, procurement)

In response to the Final Working Group report, parties filed comments and reply comments. These comments indicated a lack of consensus on several issues and, in particular, on whether to pursue and prioritize the creation of a social cost test. As a result, the Commission's Energy Division hosted a workshop to

[1] The draft list of phase three issues are: 1) Adoption of a technique for better inclusion of the uncertainty in cost-effectiveness analysis; 2) Align the cost-effectiveness framework with California's environmental goals; and 3) Develop a common framework of costs and benefits.

discuss these and related issues. During the September 22, 2016 workshop Energy Division presented a subset of options for incorporating environmental non-energy impacts into a distributed energy resource cost-effectiveness framework. Additionally, Energy and Environmental Economics (E3), consultant to Energy Division, also presented potential methods for a societal cost test. During the workshop, participants provided feedback on potential options for a staff proposal.

Discussion

As described above, the cost-effectiveness issues in this proceeding have been separated into four phases. D.16-06-007 addressed the majority of the issues surrounding phase one, improving the current cost-effectiveness framework, while ongoing work in R.14-08-013 will address the issues in phase two, i.e., locational benefits and the fourth phase will be addressed in the future. This Ruling continues the record development for addressing the third phase of improving cost-effectiveness models to accurately address California policies.

Record development began with the filing of the Working Group Final Report and the associated comments and replies. As described above, the Final Report provided three general recommendations as well as a list of issues the Commission should consider in phase three. While parties previously filed comments on the report, questions at the end of this Ruling further address the Final Report recommendations in more specific terms.

The focal point of phase three are the cost-effectiveness tests in the SPM: the Participant Test, the Ratepayer Impact Measure test, the PAC test, and the TRC test, as well as the SCT. In order to assist parties in understanding the cost-effectiveness tests, Energy Division engaged the Regulatory Assistance

Project (RAP) to examine how experts in the field believe cost-effectiveness may be used to evaluate distributed energy resources. "Effectiveness Tests for Evaluation of Distributed Energy Resources: A Literature Review" (Literature Review), performed by RAP, assesses the strengths and weaknesses and advantages and disadvantages of using different tests for different purpose. Parties are asked to read the Literature Review in order to respond to questions at the end of this ruling.

In reaction to the September 22, 2016 workshop, Energy Division developed a proposal, "Distributed Energy Resources Cost Effectiveness Evaluation: Societal Cost Test, Greenhouse Gas Adder, and Greenhouse Gas Co-Benefits" (Staff SCT Proposal). The purpose of the Staff SCT Proposal is to make recommendations on specific phase three issues. Specifically, the Staff SCT Proposal recommends:

1. Adoption of a SCT for consistent use across all distributed energy resources proceedings;
2. Adoption of specific methods to calculate a) a social discount rate; b) an air quality value; and c) a greenhouse gas adder;
3. Adoption of one or more options for incorporating the greenhouse gas adder into SPM tests; and
4. Adoption of a new avoided greenhouse gas emissions co-benefits input to the distributed energy resources cost-effectiveness framework for certain technologies.

Parties are asked to read the Staff SCT Proposal (Attachment A) and the RAP Literature Review (Attachment B), as well as review the May 31, 2016 Cost Effectiveness Working Group Final Report, and respond in general and specifically to the questions below.

Questions

Questions regarding the Staff SCT Proposal:

1. Staff recommends that the Commission adopt a consistent SCT for use in evaluation of all types of DER and describes several arguments in supporting of this proposal. Explain why you agree or disagree with the arguments provided in the Staff SCT Proposal. Describe any arguments for adoption that the Staff SCT Proposal did not include and that the Commission should consider. Describe any arguments against adopting a consistent SCT that the Commission should consider.
2. Noting that Public Utilities Code Section 701.1(c) requires the Commission to include "a value for any benefits and costs to the environment, including air quality," in its cost effectiveness calculations, the Staff SCT Proposal contends this to be the strongest justification for developing a SCT for calculating these benefits. Explain why you do or do not agree with this contention. The Staff SCT Proposal also claims that this language suggests that qualitative assessments are insufficient because the statute calls for "calculating" a value. Explain why you agree or disagree with this claim.
3. The Staff SCT Proposal asserts that the term "energy resources" can be interpreted quite broadly, concluding that "it provides an expansive foundation applicable to all distributed energy resources." Explain why you agree or disagree with this conclusion?
4. The Staff SCT Proposal states that the treatment of environmental benefits in cost-effectiveness methods across the Commission's distributed energy resources proceedings are inconsistent and a single SCT would address the inconsistency. Explain why you agree or disagree with this statement?
5. The Staff SCT Proposal recommends adoption of a set of guiding principles for developing a SCT. Is the list sufficient? Do we need others? Are these equal in priority or are some more important than others?

6. The Staff SCT Proposal provides recommendations for specific societal impacts to consider in the SCT. Explain why you agree or disagree with the staff recommendations?
7. The Staff SCT Proposal recommends that the SCT use a social discount rate set at 3 percent real. Explain why you agree or disagree with this recommendation.
8. Staff concludes that the use of the U.S. government security yields for the discount rate would unnecessarily subject cost effectiveness estimates to a volatile baseline irrelevant to California policy, making future impact analysis difficult. Explain why you agree or disagree with this conclusion.
9. The Staff SCT Proposal recommends that the air quality values should be calculated using an Environmental Protection Agency tool, specifically identifying the BenMAP and COBRA tools, but notes that further research needs to be performed. Explain why you agree or disagree with this recommendation?
10. The Staff SCT Proposal presents two options for including a greenhouse gas adder in the SMP tests. One option is to include the greenhouse gas adder only in the SCT. Explain why you support or oppose this recommendation.
11. The Staff SCT Proposal also posed a second option, to add the greenhouse gas adder to the TRC and PAC tests to create a modified TRC and modified PAC tests, which would not include the social discount rate or the air quality value. Explain why you support or oppose this recommendation.
12. The Staff SCT Proposal provided two options for determining the greenhouse gas adder: damage cost and marginal abatement cost, recommending the greenhouse gas abatement cost. Explain why you support or oppose this recommendation. Identify any other option(s) that you support, which the Staff SCT Proposal did not include, and explain your support of the other option(s).
13. The Staff SCT Proposal noted that if the Commission adopted the use of the damage cost option, it recommends the Commission adopt the Air Resources Board's method or the Environmental Protection Agency's method. Explain why you support or oppose this recommendation.

14. The Staff SCT Proposal (at Section 3.E.4 and Appendix B) contends that other avoided greenhouse gas emissions resulting from distributed energy resources adoption should also be included in the avoided carbon costs in distributed energy resources cost-effectiveness tests and recommends a new input to the avoided cost calculator be developed that quantifies these co-benefits. Explain why you support or oppose this recommendation.
15. Other than incorporating environmental benefits directly into the SPM tests, provide any other alternate option(s) for addressing the value of the environment associated with distributed energy resources. Why should the Commission adopt this alternate option(s)?
16. Parties were previously asked in this proceeding whether the Commission should adopt a societal cost test. Parties should not repeat its prior answer to this question. Instead, parties are asked to address whether and how the Staff SCT Proposal has changed its opinion on whether adoption of a social cost test is appropriate.
17. Explain why you support or oppose the staff recommendation to delegate the implementation of the specific methods and translation of inputs into the avoided cost calculator through a staff led process. If you support the staff led process, explain why you agree or oppose the tasks recommended in the Staff SCT proposal.

Questions regarding the various cost-effectiveness tests in the Literature Review:

1. The Literature Review describes the various tests used for assessing cost-effectiveness. Are there any aspects of these tests not discussed in the Literature Review?
2. The Literature Review and the Staff SCT Proposal discussed the various tests used for assessing cost-effectiveness. Explain why the Commission should or should not adopt a consistent universal framework for assessing cost-effectiveness for all distributed energy resources.
3. If the Commission determines that it should adopt one of the options to assess cost-effectiveness for all distributed energy

resources, explain which test or combination of tests the Commission should adopt.[2] Provide a recommendation of whether the same option should be used across all needs, (e.g., funding decisions, program implementation, etc.) or whether different needs require the use of different options.

4. The Literature Review describes the Commission's approach to account for participant non-energy costs and benefits in the TRC test for energy efficiency programs, using a combination of methods from net-to-gross evaluations and incremental measure cost studies. Explain why you agree or disagree that the Commission's current approach adequately eliminates non-energy impacts from the calculation of TRC costs and benefits.

Questions regarding the Cost Effectiveness Working Group Final Report:

1. Specify and explain your support of or opposition to the following two recommendations:
   a. The Commission should require that all proceeding that use cost-effectiveness analyses shall be required to use each utility's Weighted Average Cost of Capital as the discount rate.
   b. Recommended general guidelines for the methods used by all DER proceedings to apply the output of the avoided cost calculator to each proceeding's cost-effectiveness process.
2. The Final Report recommended four phase three issues, including incorporating uncertainty. Describe any existing easily implementable methods to improve the accuracy of uncertain variables used in the cost-effectiveness methods?
3. The Final Report recommended that the Commission develop a common framework of costs and benefits across all distributed

[2] The possible options are: PAC; TRC: SCT (TRC +greenhouse gas adder + air quality impacts + social discount rate): RIM; Participant Test: modified TRC (TRC + greenhouse gas adder); or modified PAC (PAC + greenhouse gas adder).

energy resources. What costs and benefits can be standardized across all distributed energy resources?

4. The Final Report stated that bundles of different technologies, as well as new technologies, are likely to become more and more important as we develop new procurement methods and markets. Thus the Final Report recommended that there is a need to enable valuation of bundled and emerging technologies that do not fit into the current technology-specific cost-effectiveness framework. What can the Commission do, in the short term to facilitate the difficulty in determining DER values without a common method or metric? In additional to standardizing the costs and benefits used, are there approaches to standardize models, processes, methods, and metrics either within the cost-effectiveness framework or among the various Commission proceedings, so that DER can be bundled, valued, and compared?
5. The Final Report recommended that more issues will emerge in the future related to the details of the models and methods contained within the avoided cost calculator, and will require additional stakeholder input. What updates should be made during the next annual avoided cost calculator review, other than routine data updates?

Comments and responses to the questions in this ruling shall be filed no later than March 23, 2017. Reply comments shall be filed no later than April 6, 2017. Parties are reminded that Commission Rules of Practice and Procedure, Rule 1.10(e), require a paper copy of all filings be sent to the assigned Administrative Law Judge.

IT IS RULED that:

1. Parties shall file responses to the questions included in this ruling no later than March 23, 2017. Parties may include general comments regarding the Staff Societal Cost Test Proposal attached to this ruling.

2. Parties may file replies to the responses and comments no later than April 6, 2017.

3. Parties shall provide, to the assigned Administrative Law Judge, a paper copy of all filings.

Dated February 9, 2017 at San Francisco, California.

/s/ KELLY A. HYMES

Kelly A. Hymes
Administrative Law Judge